

Claims

1. A method for extending battery life for an electronic device, comprising:  
determining an activity mode associated with a display panel;  
assigning a color display level based upon the activity mode;  
reading image data from a memory; and  
presenting the image data at the color display level.
2. The method of claim 1, wherein the method operation of determining an activity mode associated with a display panel includes,  
monitoring a time duration of an inactivity period;  
defining a limit for the time duration; and  
initiating a routine to modify the color display level when the time duration reaches the limit.
3. The method of claim 1, wherein the method operation of determining an activity mode associated with a display panel includes,  
monitoring an activity indicator selected from the group consisting of keystrokes, stylus input, remaining battery power, and inactivity duration.
4. The method of claim 1, wherein the method operation of assigning a color display level based upon the activity mode includes,  
writing into a translation table to modify a number of color availability options.
5. The method of claim 4, wherein the method operation of writing into a translation table to modify a number of color availability options includes,  
truncating a portion of a value associated with the color display level.

6. The method of claim 5, wherein the portion of the value is a least significant bit of a color value.
7. The method of claim 2, further comprising:  
reducing data line toggling.
8. The method of claim 1, further comprising:  
associating the image data with the color display level through a look-up table.
9. A computer readable medium having program instructions for extending battery life for an electronic device, comprising:  
program instructions for determining an activity mode associated with a display panel;  
program instructions for assigning a color display level based upon the activity mode;  
program instructions for reading image data from a memory; and  
program instructions for presenting the image data at the color display level.
10. The computer readable medium of claim 9, wherein program instructions for determining an activity mode associated with a display panel includes,  
program instructions for monitoring a time duration of an inactivity period;  
program instructions for defining a limit for the time duration; and  
program instructions for initiating an interrupt routine to modify the color display level when the time duration reaches the limit.

11. The computer readable medium of claim 9, wherein the program instructions for determining an activity mode associated with a display panel includes, program instructions for monitoring an activity indicator selected from the group consisting of keystrokes, stylus input, remaining battery power, and inactivity duration.

12. The computer readable medium of claim 9, wherein the program instructions for assigning a color display level based upon the activity mode includes, program instructions for writing into a translation table to modify a number of color availability options.

13. The computer readable medium of claim 12, wherein the program instructions for writing into a translation table to modify a number of color availability options includes, program instructions for truncating a portion of a value associated with the color display level.

14. The computer readable medium of claim 10, further comprising: program instructions for reducing data line toggling.

15. A graphics controller, comprising:  
an interface for receiving and transmitting image data; and  
a memory region in communication with the interface, the memory region having a look-up table stored therein, the look-up table configured to modify color tables which control an amount of data sent to a display screen, wherein the look-up table is programmable to correspond to a power level state of a power supply for the graphics controller.

16. The graphics controller of claim 15, wherein the look-up table is capable of limiting the toggling of data lines by truncating a portion of a color value.

17. The graphics controller of claim 16, wherein the portion of the color value is one of a least significant bit of the color value and a most significant bit of the color value.

18. The graphics controller of claim 15, wherein the interface is capable of reading from and writing to the look-up table.

19. The graphics controller of claim 15, further comprising:  
a display controller configured to communicate color data from the look-up table to a display device in communication with the display controller.

20. A device, comprising:  
a central processing unit (CPU);  
a display screen; and  
a graphics controller in communication with the CPU and the display screen, the graphics controller including,  
an interface providing communication with the CPU; and  
a memory region in communication with the interface, the memory region having a look-up table stored therein, the look-up table configured to limit an amount of data sent to a display screen from a color table associated with the look-up table, wherein the look-up table is configured to control toggling of data lines to minimize power consumption.

21. The device of claim 20, further comprising:

a battery power supply.

22. The device of claim 20, further comprising:

data lines defined between the display screen and a display interface of the graphics controller, the data lines configured to provide color data from the graphics controller to the display screen, wherein a number of data lines utilized to provide the color data is limited as a power supply level decreases.

23. The device of claim 20, wherein the device is a portable electronic device.

24. The device of claim 23, wherein the portable electronic device is a device selected from the group consisting of a cellular phone, a web tablet, a personal digital assistant, and a laptop computer.